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An Essay
on the

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Acute stage of Hepatitis,
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The attention paid of late years to Morbid Anatomy, has shed much light on many branches of our science — and improvement in any one of them, is not more manifest than that which has been effected in Pathology. This observation applies with peculiar force to the disease which I have selected as the subject of my inaugural Thesis. This has engaged the attention of many learned and experienced men who have written so fully and ably on it, as to leave me but a slender opportunity of suggesting any thing new or interesting in regard either to its causes or treatment. But as it is one of frequent occurrence in many parts of our Country, I have been induced chiefly by this circumstance to direct my attention to it. Acting therefore on this principle, it will be perceived in the following communication that it has been my endeavour, "to collect to arrange and communicate in plain clear language" those facts and observations which are to be found in the writings of some of the best Authors on this subject —

Hepatitis or inflammation of the Liver has by the generality of Writers been divided into two species — the one acute, the other chronic. The former (which is the subject of my Essay) commences with the ordinary phenomena of pyrexia; chillness, succeeded by heat, and finally fever.
Conjoined with this, there is pain in the right hypochondriac region, which is sometimes shooting, at other times more constant, and often acute, or obtuse and deep-seated. The pain is not confined to the region of the Liver, but extends to the clavicle and shoulder, particularly of the right side.

This last symptom according to Dr. Good, "is to be accounted for by recollecting that the radiations of the phrenic nerve extend in an upper line, to the shoulder, and in a lower, to the diaphragm which constitute its extreme points."
That principle of sympathy which induces remote parts, and particularly remote extremities to associate in the same morbid action, is peculiarly conspicuous in a con=

=tinued chain of nervous fibres. A morbid impression being made on one extremity of a nerve, the other in many instances becomes the chief seat of distress.

"Hence" continues the same Author "as the under surface of the diaphragm participates from its contiguity, in an inflammation of the Liver, the top of the shoulder suffers, as forming the extreme point of the phrenic chain by which these organs are connected."

In some instances, the pain is felt in both scapulæ. The hypochondrium is tender on pressure, and the patient is frequently unable to lie with ease except on the side affected.

Together with nausea and sickness, and often with a vomiting of bilious matter, the intestines are generally inactive, and the stools shew a defi=ciency of biliary secretion, or are at least in a very slight degree tinged with bile. The urine is discharged in small quantities, being at the same time of a deep saffron colour. We have also a loss of appetite,

great thirst and costiveness, with a strong hard, and fre=
=quent pulse. The skin is hot and dry, and the tongue
covered with a white — sometimes a yellowish fur.

The blood drawn from a patient la=
=bouring under this disease, is said to exhibit a green=
=ish appearance just before it coagulates which
is supposed to be "owing to the mixture of the yel=
=low-coloured bile, with the purple-coloured venous
blood, yellow and purple forming green."

Hepatitis is sometimes accompanied
with a jaundiced colour of the skin, and this ap=
=pearance has been ranked among the diagnostic
symptoms of the disease; but it is not suffici=
=ently frequent to be enumerated among the pa=
=thonomonic characters.

The symptoms in Hepatitis
are not always of the same degree of violence, but
vary according as the membrane of the Liver, or its
substance may be affected. When the former is the

seat of inflammation, the pain is more acute, but if the latter, possessing little sensibility, be affected, the pain is usually obtuse.

Nosologists have been at some pains to determine, by symptoms, what part of the Liver is inflamed in different cases of this disease. The superior or convex surface of this organ being affected, the inflam=mation sometimes spreads to the diaphragm and Lungs, producing great difficulty of breathing, with a short dry and frequent cough. While in many instances hiccup attends, which is so violent as almost to interrupt respiration.

But where the inflammation occupies the inferior or concave surface, the stomach (as the Lungs do in the former case) becomes disordered; here then we have nausea and vomiting, the cough and dyspnea being either entirely wanting, or if present, existing in a much less degree. And the pain in the region of the Liver is not so violent as in the other instance.

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If the inflammation is seated in the left lobe of the Liver, a pain will be felt in the Shoulder of the Corresponding side.

Hepatitis like other inflammations may terminate in resolution, suppuration, gangrene, or scirrhus. The tendency of the disease to resolution, is known by the general mildness of the symptoms. When this favourable termination takes place, it is generally about the third or fourth day; the disease continuing to the seventh, suppuration may be expected.

The period of suppuration however, is influenced by the degree of inflammation, the habits of the patient, the season of the year, the plan of treatment which is pursued, and particularly by the climate. Inflammation of the substance of the Liver in hot climates, often advances with great rapidity, so that suppuration sometimes occurs in a very short time.

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pulse continuing full and frequent, and the pain urgent, with rigors, it may be inferred that suppuration is approaching, and when an abcess has actually formed, there will be a sense of weight in the part, together with throbbing pains, flushings of the countenance, night sweats, and other marks of hectic fever.

The danger from suppuration depends very much on the location of the abcess. When it points outwardly, adhesions sometimes form, between the Liver and parietes of the abdomen. The tumour here becomes more and more prominent, fluctuation is perceptible, and finally matter is discharged by an external opening, and the patient frequently recovers. In some instances however, where such adhesions have not formed, and the walls of the abcess are thin, the matter bursts into the cavity of the abdomen, peritoneal inflammation is the consquence, and death very soon follows. The abcess

being seated in the more internal parts of the Liver, adhesions occasionally form with the stomach or intestines, the matter finds its way by ulcera=tion into them, and is discharged either by vo==miting or stool. Even where such an event has occurred, there is reason to believe patients have recovered. In some cases the abcess by erosion of the diaphragm forms a communica==tion with the cavity of the Thorax, giving rise to purulent expectoration. This should be con==sidered a fatal accident. The patient under such circumstances seldom recovers, but gradually sinks under hectic fever and symptoms of hydro==thorax.

Hydatids of considerable size are occasion==ally formed in the Liver, and when they accompany abcesses of this organ they greatly increase the danger of the disease.

Hepatitis sometimes, tho' very rarely, terminates

in gangrene. When there is a tendency to this termi=
=nation, the symptoms are unusually violent, and
continue to increase, without yielding in the slight=
=est degree to our remedies. But when it has
actually taken place, the inflammatory symptoms
suddenly subside, cold sweats supervene, while
the pulse becomes weak and fluttering, attended
with hiccup and cold extremities.

Scirrhus has been enumerated among the
terminations of this disease, but it is, I believe,
generally regarded rather as a consequence of
the chronic, than the acute variety of Hepatitis.
Causes — This disease is more prevalent in warm,
than in cold climates and persons of a choleric
and Melancholic temperament, are said to be
particularly predisposed to its attacks.
Among the causes may be enumerated external
violence from contusions a falls, and especially
those which have occasioned a fracture of the

cranium. Hepatitis being often a consequences of this accident. Exposure to the damps of the night in sultry climates, or the partial application of cold or wet, when the body is over-fatigued or heated are particularly apt to produce the disease. Violent exercise, intense summer heats, long continued intermittent, and remittent fevers, the immoderate use of mercury, and high living with indulgence in vinous and spirituous liquors, may also be regarded among the most frequent causes. Derangement of the digestive organs, violent passions of the mind, particularly rage and the depressing passions, are moreover to be considered in this light.

Diagnosis— The only diseases with which Hepatitis can be confounded are Gastritis and Pneumonia, "and" to cite the words of the celebrated Philip, "from the vicinity of the Lungs, Liver, and Stomach, the sympathy of these parts, the difficulty with

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which the precise seat of internal pains is ascertained, and above all, the tendency of inflammation to spread to neighbouring parts; the symptoms of these dis=
=eases, and even the diseases themselves, are some=
=times so combined that it is impossible to say where the chief seat of inflammation lies." If upon taking any thing into the stomach, the heat and pain be not increased, if the liquids or medicines received into it, be retained without their imme=
=diate rejection, and if the prostration of strength exist in a much less degree, we shall by attend=
=ing to these circumstances be enabled to distin=
=guish Hepatitis from Gastritis. Frequently how=
=ever, in consequence of the great irritability of the Stom=
=ach at the commencement of Hepatitis, we expe=
=rience considerable difficulty in ascertaining whe=
=ther the one, or the other disease be present.

The pain extending to the shoulder, the sallow countenance, and the cough unaccom=

=panied with expectoration observable in this dis=
=ease, will readily distinguish it from Pneumonia.
The dyspnea so distressing and constant in Pneu=
=monia, exists in a much less degree in Hepatitis.
Prognosis — We may anticipate a favourable ter=
=mination of this disease, when there is a gradual
diminution of the pain and fever, where the
cough subsides, the pulse becomes slower, and
the heat and dryness of the skin, are yielding
to a pleasant moisture; while together with
these the colour of the countenance becomes more
natural. The reverse of these are very unfavora=
=ble symptoms.
Post Mortem appearances — Generally the Liver is found
enlarged from congestion; its peritoneal covering some=
=times inflamed, and less adhesive than natural,
and its surface is livid, a reddish and marbled.
The substance of the organ is brittle and friable,
in proportion to the degree of inflammation; and

when squeezed between the fingers is granular; the gra=
=nulations consisting of the parenchymatous struc=
=ture. These are the appearances presented by the
Liver when inflamed, and before suppuration has
set in. When the latter takes place, pus is in=
=filtrated throughout its cellular substance, or
is collected in small abcesses or cysts, or in a
single abcess. Phlogosis of the mucous lining
of the Hepatic duct is also met with, and
the same is presented in the stomach, particular=
=ly about the pylorus.

Pathology — In common with most other hepatic
affections, the primary irritation in this disease
is located (except when produced by violence) in
the mucous membrane of the stomach, and from
the great sympathy existing between these parts,
the Liver ultimately becomes affected. The
history and causes of the disease, together with
the appearances revealed on dissection, warrant

such a conclusion.

Treatment — The mode of treatment in this disease does not differ materially from that which is pursued, in other violent cases of phlegmasia.

At the commencement of the attack when the inflammatory symptoms are very considerable, general bleeding should be adopted, proportioning the quantity taken away to the severity of the pain, and to the degree of fever that is present.

If a considerable abatement of the symptoms does not follow the operation, and the inflammatory action still continue, V. Sect: should be repeated. If a free use of the lancet be neglected, suppuration must inevitably ensue, in consequence of the obstinate and rapid progress of the disease.

Bloodletting having been employed, purgatives become extremely beneficial; the best of which

is Calomel, succeeded by some mild Cartative, as Epsom Salts or Castor Oil. Active purging is here of the ut=
=most importance, for although by V.S. and other means, inflammation may be subdued, yet unlys the healthy secretions of the Liver be restored, the cure cannot be accomplished. It is recommended to exhibit the Calomel in minute doses until ten or fifteen grains have been taken, and then to work it off by some mild laxative.

Independently of the purgative effects of this medicine, it emulges or unloads the Liver, and restores its natural secretions.

Topical bleeding is not lys important and should not be overlooked. Cups or leeches, or both should be liberally applied to the region of the Liver, suc=
=ceeded (provided the febrile action is suffici=
=ently reduced) by the application of a large blister, or what is preferred by some, a succession of blisters, over the right hypochondriac region.

Dr. Good does not speak in very favour=
=able terms of the efficacy of blisters in this disease,
but says he has derived more advantage from fomen=
=tations and the warm bath. Diaphoretics (of which
some of the antimonial preparations are to be prefer=
=red) may be employed with great advantage; and
particularly when a moisture appears on the skin.

If the disease should not give
way after having strictly pursued the antiphlogistic
course for four or five days we should resort to the
use of mercury. Some practitioners have recourse
to it, on the very onset, but in general it is not
used with a view to its constitutional effects,
until the inflammatory symptoms have been
somewhat subdued by the antiphlogistic
plan. After the inflammation has been
sufficiently reduced a gentle mercurial ptya=
=lism should be excited, and kept up for a con=
=siderable time.

No plan of treatment will always succeed, and suppuration sometimes ensues notwithstanding all our efforts. During formed there will be either a remission of the pain, or the patient complains of a dull obtuse sensation in the part, together with throbbing pains. Whenever the abcess points, it should be matured by poultices and opened. The abcess having discharged itself there is usually much debility; here the system must be soothed, by the occasional use of Opium, and by Tonics, among which the Nitric and Nitro-muriatic acids will often prove extremely serviceable.